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MEAN WELL

SWITCHING POWER SUPPLY

ISO-9001 CERTIFIED MANUFACTURER

LPS-100 SERIES

Jameco Part Number 213591 (LPS-100-5)

.LOW COST, HIGH RELIABILITY
.COMPACT SIZE, LIGHT WEIGHT
.105◦C OUTPUT CAPACITOR
.100% FULL LOAD BURN-IN TEST
.INTERNATIONAL AC INPUT RANGE
.BUILT IN EMI FILTER, LOW RIPPLE NOISE
.HIGH EFFICIENCY, LOW WORKING TEMPERATURE
.SOFT-START CIRCUIT, LIMITING AC SURGE CURRENT
.SHORT CIRCUIT, OVERLOAD, OVER VOLTAGE PROTECTED

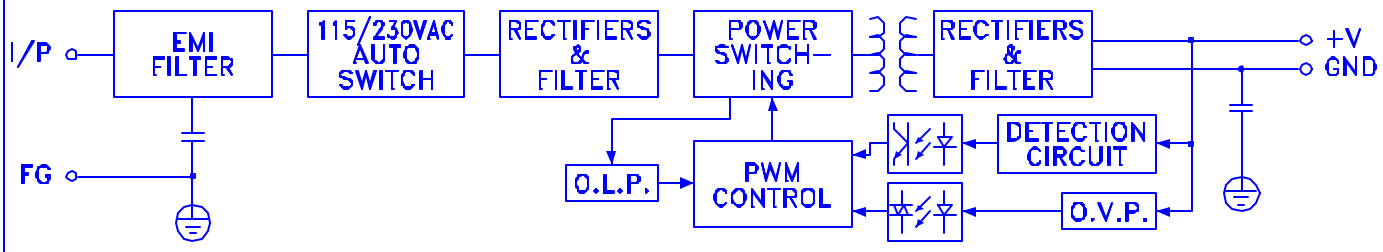
MODEL / SPECIFICATION	LPS-100-3.3	LPS-100-5	LPS-100-7.5	LPS-100-12	LPS-100-13.5	LPS-100-15	LPS-100-24	LPS-100-27	LPS-100-48
DC OUTPUT VOLTAGE	3.3V	5V	7.5V	12V	13.5V	15V	24V	27V	48V
OUTPUT V. TOLERANCE	±3%	±3%	±2%	±2%	±2%	±2%	±1%	±1%	±1%
OUTPUT RATED CURRENT	20A	20A	13.3A	8.4A	7.5A	6.7A	4.2A	3.8A	2.1A
OUTPUT CURRENT	0-20A	0-20A	0-13.3A	0-8.4A	0-7.5A	0-6.7A	0-4.2A (6.0A 10s)	0-3.8A	0-2.1A
RIPPLE & NOISE (p-p)	150mV	100mV	100mV	100mV	100mV	100mV	150mV	150mV	200mV
LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
LOAD REGULATION	±2%	±2%	±1.5%	±1.5%	±1.5%	±1.5%	±0.5%	±0.5%	±0.5%
RATED OUTPUT POWER	66W	100W	99.75W	100.8W	101.25W	100.5W	100.8W (144W 10s)	102.6W	100.8W
EFFICIENCY	69%	77%	77%	79%	79%	80%	80%	81%	81%
DC VOLTAGE ADJ.	3-3.6V	4.5-5.7V	6-9V	10-13.2V	12-15V	13.5-18V	20-26.4V	26-32V	41-56V
INPUT VOLTAGE RANGE	88~132VAC / 176~264VAC AUTO SWITCH 47~63Hz; 248~370VDC								
AC CURRENT	2.3A/115V 1.5A/230V								
INRUSH CURRENT	COLD START 30A/115V 60A/230V								
LEAKAGE CURRENT	<1 mA/240VAC								
OVERLOAD PROTECTION	105~140%(+24V:ABOVE 6.5A) TYPE:PULSING HICCUP SHUTDOWN RESET:AUTO RECOVERY								
OVER VOLTAGE PROTECTION	3.8-4.45V	5.75-6.75V	9.4-10.9V	13.8-16.2V	15.5-18.2V	18-21V	27.6-32.4V	33.7-39.2V	57.6-67.2V
TEMP. COEFFICIENT	±0.05% / ◦C (0~50◦C)								
SETUP, RISE, HOLD UP TIME	800ms, 50ms, 20ms/230VAC 1.2s, 50ms, 20ms/115VAC								
VIBRATION	10~500Hz, 2G 10min./1cycle, PERIOD FOR 60min. EACH AXES								
WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC								
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:500VDC / 100M Ohms								
WORKING TEMP., HUMIDITY	-10◦C~+60◦C(REFER TO OUTPUT DERATING CURVE), 20%~90% RH								
STORAGE TEMP., HUMIDITY	-20◦C~+85◦C, 10%~95% RH								
DIMENSION	222*62*35mm (L*W*H) PCB ONLY								
WEIGHT	0.37Kgs								
SAFETY STANDARDS	UL1950, TUV EN60950 APPROVED								
EMC STANDARDS	CISPR22 (EN55022) CLASS B, IEC1000-2,3,4 VERIFICATION								

NOTE :
1.ALL PARAMETERS ARE SPECIFIED AT 230VAC INPUT, RATED LOAD, 25◦C 70% RH. AMBIENT.
2.TOLERANCE GINCLUDE SET UP TOLERANCE, LINE REGULATION, LOAD REGULATION.
3.RIPPLE & NOISE ARE MEASURED AT 20MHz BY USING A 12" TWISTED PAIR TERMINATED WITH A 0.1uF & 47uF CAPACITOR.
4.LINE REGULATION IS MEASURED FROM LOW LINE TO HIGH LINE AT RATED LOAD.
5.SHORT OR OVERLOAD CONDITION CONTINUES MORE THAN 10 SECONDS, IT WILL DAMAGE THE COMPONENTS INSIDE THE POWER SUPPLY.
6.IF THE INPUT RANGE 85V-89V,THE OUTPUT LOAD IS CHANGED FROM 0A-RATED LOAD,THERE WILL BE REDUCED 20V FOR 1 SECOND (LPS-100-24).
7.MOUNTING HOLES M1 AND M2 SHOULD BE GROUNDED FOR EMI PURPOSES.

1999-07-23

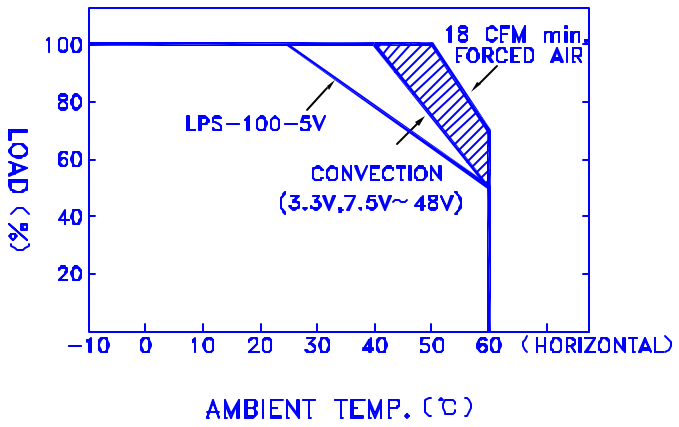
NEXT (MECHANICAL INFO)

BLOCK DIAGRAM

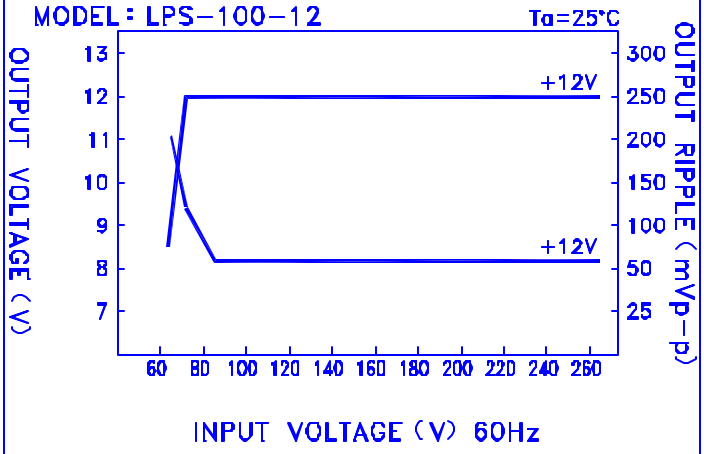


fosc : 135KHz

OUTPUT DERATING



STATIC CHARACTERISTICS



DIMENSION (mm)

☒ TERMINAL PIN NO. ASSIGNMENT

- ☒ CN1 : JST B5P-VH
  PIN 1,3,5 : AC INPUT
- ☒ CN2 : JST B8P-VH
  PIN 1,2,3,4 : DC OUTPUT +V
  PIN 5,6,7,8 : DC OUTPUT -V

☒ MATING CONNECTORS

- ☒ CN1,2 MATING CONNECTOR TYPE
  JST VHR SERIES OR EQUIVALENT WITH
  JST SVH-21T-P1.1 OR EQUIVALENT
  CRIMP TERMINALS.